*Please provide the following information, and submit to the NOAA DM Plan Repository.*

**Reference to Master DM Plan (if applicable)**

*As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.*

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

**1. General Description of Data to be Managed**

**1.1. Name of the Data, data collection Project, or data-producing Program:**
2017 OLC Topobathy Lidar: New River, OR

**1.2. Summary description of the data:**
In late March of 2017, Quantum Spatial (QSI) was contracted by the Oregon LiDAR Consortium (OLC) to collect topobathymetric Light Detection and Ranging (LiDAR) data in the early spring of 2017 for the New River, OR site along the southwestern Oregon coast. The area of interest stretches along New River, which runs parallel with the Oregon coast. Data were collected to aid OLC in assessing the topographic and geophysical properties of the study area along the river's course. The horizontal datum for this dataset is NAD83 (2011), the vertical datum is NAVD88, Geoid 12A, and the data is projected in UTM Zone 10 North. Units are in Meters. Quantum Spatial collected the New River, OR Topobathymetric LiDAR data for the Oregon LiDAR Consortium on 04/04/17.

NOAA's Office for Coastal Management received the associated LAZ files from OLC and processed them to the Digital Coast's Data Access Viewer, converting to geographic projection and ellipsoidal heights. A bare-earth digital elevation model was also received and is available, see the Related Items section, below.

**1.3. Is this a one-time data collection, or an ongoing series of measurements?**
One-time data collection

**1.4. Actual or planned temporal coverage of the data:**
2017-04-04

**1.5. Actual or planned geographic coverage of the data:**
W: -124.506666, E: -124.434854, N: 43.055234, S: 42.910352

**1.6. Type(s) of data:**
*(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)*
Model (digital)

**1.7. Data collection method(s):**
*(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy,*

*research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)*

**1.8. If data are from a NOAA Observing System of Record, indicate name of system:**

**1.8.1. If data are from another observing system, please specify:**

**2. Point of Contact for this Data Management Plan (author or maintainer)**

**2.1. Name:**
NOAA Office for Coastal Management (NOAA/OCM)

**2.2. Title:**
Metadata Contact

**2.3. Affiliation or facility:**
NOAA Office for Coastal Management (NOAA/OCM)

**2.4. E-mail address:**
coastal.info@noaa.gov

**2.5. Phone number:**
(843) 740-1202

**3. Responsible Party for Data Management**
*Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.*

**3.1. Name:**

**3.2. Title:**
Data Steward

**4. Resources**
*Programs must identify resources within their own budget for managing the data they produce.*

**4.1. Have resources for management of these data been identified?**
Yes

**4.2. Approximate percentage of the budget for these data devoted to data management ( specify percentage or "unknown"):**
Unknown

**5. Data Lineage and Quality**
*NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.*

**5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible**
*(describe or provide URL of description):*
Process Steps:
- 2017-04-04 00:00:00 - Acquisition. Quantum Spatial collected the New River, OR Topobathymetric LiDAR data on 04/04/17. The survey used a Riegl VQ-880-G laser system mounted in a Cessna Caravan. Ground level GPS and aircraft IMU were collected during the flight.   Sensor: Riegl VQ-880-G Maximum returns: Unlimited Nominal pulse density: 6 pulses/m^2 Nominal pulse spacing: 0.408 m AGL: 372 m Speed: 110 knots FOV: 40° Scan frequency: 50 hz Pulse rate: 245 kHz Pulse duration: 1.2 ns Pulse width: 0.26 cm Wavelength: 532 nm Pulses in air mode: Multiple Pulses in Air Beam divergence: 1 mrads Swath width: 290 m Overlap: 60%
- 2017-06-10 00:00:00 - Processing Steps (software used):   Resolve kinematic corrections for aircraft position data using kinematic aircraft GPS and static ground GPS data. Develop a smoothed best estimate of trajectory (SBET) file that blends post-processed aircraft position with sensor head position and attitude recorded throughout the survey. (Waypoint Inertial Explorer v.8.6 POSPac MMS v7.1 SP3) Calculate laser point position by associating SBET position to each laser point return time, scan angle, intensity, etc. Create raw laser point cloud data for the entire survey in *.las (ASPRS v. 1.2) format. Convert data to orthometric elevations by applying a geoid correction. (RiProcess v1.7.2 Waypoint Inertial Explorer v.8.6 TerraMatch v.17 )   Import raw laser points into manageable blocks (less than 500 MB) to perform manual relative accuracy calibration and filter erroneous points. Classify ground points for individual flightlines. (TerraScan v.17)   Using ground classified points per each flightline, test the relative accuracy. Perform automated line-to-line calibrations for system attitude parameters (pitch, roll, heading), mirror flex (scale) and GPS/IMU drift. Calculate calibrations on ground classified points from paired flightlines and apply results to all points in a flightline. Use every flightline for relative accuracy calibration. (TerraMatch v.17 RiProcess v1.7.2 ) Apply refraction correction to all subsurface returns. (LAS Monkey 2.2.6 (QSI proprietary) )   Classify resulting data to ground and other client designated ASPRS classifications. Assess statistical absolute accuracy via direct comparisons of ground classified points to ground control survey data. (TerraScan v.17 TerraModeler v.17)  Generate bare earth models as triangulated surfaces. Generate highest hit models as a surface expression of all classified points. Export all surface models as ESRI GRIDs at a 1 meter pixel resolution. (TerraScan v.17 TerraModeler v.17 ArcMap v. 10.2.2 )   Correct intensity values for variability and export intensity images of all returns as GeoTIFFs at a 0.5 meter pixel resolution. (ArcMap v. 10.2.2 Las Product Creator 1.5 (QSI proprietary)) (Citation: Processed Topobathy Lidar)
- 2019-11-15 00:00:00 - NOAA/OCM received the data from DOGAMI in LAZ format . Data were in NAD83(2011) UTM zone 10N and NAVD88 (Geoid12a) vertically. All units were meters. For ingest into the Digital Coast Data Access Viewer data were converted to geographic coordinates on the GRS80 ellipsoid in meters.

**5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:**

**5.2. Quality control procedures employed (describe or provide URL of description):**

## 6. Data Documentation

*The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.*

**6.1. Does metadata comply with EDMC Data Documentation directive?**
No

**6.1.1. If metadata are non-existent or non-compliant, please explain:**
Missing/invalid information:
- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 5.2. Quality control procedures employed
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.4. Approximate delay between data collection and dissemination
- 8.3. Approximate delay between data collection and submission to an archive facility

**6.2. Name of organization or facility providing metadata hosting:**
NMFS Office of Science and Technology

**6.2.1. If service is needed for metadata hosting, please indicate:**

**6.3. URL of metadata folder or data catalog, if known:**
https://www.fisheries.noaa.gov/inport/item/58225

**6.4. Process for producing and maintaining metadata**
*(describe or provide URL of description):*
Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

## 7. Data Access

*NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides*

*information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.*

    **7.1. Do these data comply with the Data Access directive?**
    Yes

    **7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?**

    **7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:**

    **7.2. Name of organization of facility providing data access:**
    NOAA Office for Coastal Management (NOAA/OCM)

    **7.2.1. If data hosting service is needed, please indicate:**

    **7.2.2. URL of data access service, if known:**
    https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=8928
    https://coast.noaa.gov/htdata/lidar3_z/geoid12b/data/8928

    **7.3. Data access methods or services offered:**
    Data is available online for bulk or custom downloads

    **7.4. Approximate delay between data collection and dissemination:**

    **7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:**

**8. Data Preservation and Protection**
*The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.*

    **8.1. Actual or planned long-term data archive location:**
    *(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)*
    NCEI_CO

    **8.1.1. If World Data Center or Other, specify:**

    **8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:**

    **8.2. Data storage facility prior to being sent to an archive facility (if any):**

Office for Coastal Management - Charleston, SC

**8.3. Approximate delay between data collection and submission to an archive facility:**


**8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?**
*Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection*

Data is backed up to tape and to cloud storage.


## 9. Additional Line Office or Staff Office Questions
*Line and Staff Offices may extend this template by inserting additional questions in this section.*